

**WHAT IS CLAIMED IS:**

1. A method for configuring a router, the method comprising:  
  
receiving an XML-based configuration command for the router;  
  
accessing a configuration schema associated with the router;  
  
translating the received XML-based configuration command to a CLI-based configuration command based upon the configuration schema; and  
  
providing the CLI-based configuration command to the router.
2. The method of claim 1, wherein the router is a first router and wherein accessing the configuration schema comprises:  
  
accessing a configuration schema generated by:  
  
accessing a second router;  
  
retrieving a CLI-based command set from the second router; and  
  
generating the configuration schema from the retrieved command set.
3. The method of claim 1, further comprising:  
  
determining a characteristic for the router;  
  
wherein the accessed configuration schema corresponds to the determined characteristic for the router.
4. The method of claim 3, wherein the characteristic comprises one of:  
  
manufacturer identity, model identity, and OS version.

5. The method of claim 1, wherein providing the CLI-based command comprises:  
providing the CLI-based command to a configuration storage module associated  
with the router.

6. An electronic method comprising:
- accessing a network component;
- retrieving a command set from the network component;
- generating a configuration schema using the retrieved command set, wherein the generated configuration schema corresponds to the network component; and
- storing the generated configuration schema.
7. The method of claim 6 further comprising:
- activating a command extraction mode of the network component.
8. The method of claim 6, wherein retrieving the command set comprises:
- retrieving a set of primary commands;
- retrieving a set of subcommands for each of the primary commands in the set of primary commands; and
- retrieving a set of bounds for a plurality of the set of subcommands for a first primary command.
9. The method of claim 8, wherein generating the configuration schema comprises:
- identifying a command array in the command set, wherein the command array includes a primary command and a subcommand associated with the primary command;
- extracting the primary command from the command array; and
- extracting the subcommand from the command array.

10. The method of claim 9, wherein generating the configuration schema comprises:  
forming an XML object using the extracted primary command and the extracted subcommand.

11. The method of claim 6, wherein the retrieved command set is a first command set and includes a plurality of primary commands and wherein generating the configuration schema comprises:

configuring the router according to a first of the plurality of primary commands;  
and

retrieving a second command set;

wherein the second command set includes a plurality of subcommands associated with the first of the plurality of primary commands and wherein the first command set and the second command set are different.

12. The method of claim 6, further comprising:

cleansing the retrieved command set.

13. The method of claim 6, further comprising:

determining a characteristic of the network component.

14. The method of claim 13, further comprising:

storing the generated configuration schema in accordance with the determined characteristic.

15. The method of claim 14, wherein the determined characteristic comprises:  
one of device type, manufacturer, model, and operating system version.
16. The method of claim 6, wherein accessing a network component comprises:  
accessing a router.

17. A system comprising:
- a processor;
  - a configuration interface connected to the processor;
  - a configuration command storage module connected to the processor;
  - a converter connected to the processor; and
  - a configuration schema storage device connected to the converter.
18. The system of claim 17, wherein the configuration schema storage device is configured to store a configuration schema generated by:
- accessing a network component;
  - retrieving a command set from the network component;
  - generating a configuration schema corresponding to the network component,
- wherein the configuration schema is based upon the retrieved command set; and
- storing the generated configuration schema.
19. The system of claim 17, further comprising:
- routing hardware.
20. The system of claim 17, further comprising:
- optical hardware.

21. A method for interfacing with a network device, the method comprising:
- receiving a command in a first format, wherein the command is directed to the network device;
- determining a device characteristic for the network device;
- accessing a configuration schema corresponding to the determined device characteristic;
- translating the received command from the first format to a second format using the accessed configuration schema; and
- providing the command in the second format to the network device.
22. The method of claim 21, wherein the first format comprises a XML-based format.
23. The method of claim 22, wherein the second format comprises a CLI-based format.

24. A computer program product comprising:
- a storage medium; and
  - a plurality of instructions stored upon the storage medium, the plurality of instructions configured to instruct an electronic device to:
    - access a network component;
    - retrieve a command set from the network component; and
    - generate a configuration schema corresponding to the network component,wherein the configuration schema is based upon the retrieved command set.
25. The computer program product of claim 24, wherein the plurality of instructions are further configured to instruct the electronic device to:
- activate a command extraction mode associated with the network component.
26. The computer program product of claim 24, wherein the storage medium comprises:
- a carrier wave.
27. The computer program product of claim 24, wherein the plurality of instructions are further configured to instruct the electronic device to:
- retrieve a bound for a first command in the command set.



28. A system for configuring a router, the system comprising:
- means for receiving an XML-based configuration command for router;
  - means for accessing a configuration schema associated with the router; and
  - means for translating the received XML-based configuration command to a CLI-based configuration command.
29. The system of claim 28, further comprising:
- means for providing the CLI-based configuration command to the router.